Northern Arizona University  
Institutional Animal Care and Use Committee Checklist 
Vertebrate Animal Use Review Form for NIH Funded Research

Protocol Information:  
• Principal Investigator:  
• Protocol title and number:  
• IACUC approval date:  
• Site(s) where animal work will be conducted:

IACUC protocols will be evaluated for congruency with the Vertebrate Animal Section (VAS) and Scientific Design (SD) sections of the grant proposal in the following 5 required areas.

1. Animals and their proposed use:
   • Species:  
   • Strain:  
   • Ages:  
   • Sex:  
   • Number of animals to be used:  
   • Complete description of proposed procedures:

2. Justification for use of:
   • The use of animals:  
   • Choice of species:  
   • Number of animals to be used (cite power analysis if appropriate):  
   • Use of animals that are endangered, protected, costly or in short supply:

3. General description of veterinary care and support:
   • Description of veterinary staff and their availability:  
   • Regular schedule of animal monitoring by veterinary staff:  
   • Any additional monitoring by veterinary staff that is necessary (ex. post surgical):  
   • Indicators for veterinary intervention to relieve pain, discomfort, distress:

4. Procedures to minimize pain, discomfort or distress or injury:
   • Circumstances where animals may experience pain, distress or injury:  
   • Procedures to minimize pain, distress or injury:  
   • Identify sedatives, analgesics, anesthetics, antibiotics or other treatments to be used:  
   • Provisions for special care or housing after procedures if applicable:  
   • Plans for post surgical care for survival surgeries:  
   • Indicators for humane endpoints if relevant:  
   • Describe use of restraint devices if relevant:

5. Euthanasia:
   • Method of euthanasia and rationale:  
   • Is method consistent with AVMA Guidelines for Euthanasia?:  
   • Provide scientific justification if method if not AVMA recommended:
Determination:
- No vertebrate animals used:
- No concerns/acceptable:
- Concerns/not acceptable:

NO VERTEBRATE ANIMALS (Code 10)
Animal tissue is obtained from other sources such as a tissue collection or from animals euthanized for an unrelated purpose. The source of the tissue should be described in the application.

Vertebrate animal use: If animals are obtained or euthanized for the purposes of the protocol, the proposal is coded for use of vertebrate animals. Use one of the two codes as determined by the reviewer.

NO CONCERNS/ACCEPTABLE (Code 30)
All parameters are acceptable and consistent with the grant materials as determined by the reviewer.

CONCERNS/NOT ACCEPTABLE: (Code 40)
Discrepancies exist between the grant and the protocol in any of the 5 required areas.

Description of five required areas:
1. Description of animals and how they will be used
A clear description of procedures must be included in both the grant and the protocol. Sufficient detail must be provided to determine what is taking place. Examples may include; surgical procedures, blood collection, administration of substances, cells or exposure to radiation etc.

2. Justifications for use of animals
The use of animals must be justified. Alternatives to animal use such as mathematical models, computer simulation, and cell culture systems must be considered. The reasons why alternatives cannot be used must be described. Investigators are encouraged to consider means to replace, reduce and refine the use of animals. The choice of species must be justified. If a simpler animal model is available, the investigator must justify the use of a more advanced species such as NHP, dogs or cats. If animals are in endangered, protected, scarce, costly, or used in large numbers, an explanation for their use must be provided. An estimate of the number of animals to be used should be as accurate as possible. Justification used may include experimental success rate, animal availability, the use of control groups and requirements for statistical significance. Power calculations should be used to determine animal numbers if possible.

3. Veterinary care
Investigator should describe the availability of the veterinarian and staff and the frequency that veterinary staff will monitor animals should be included. If survival surgeries are proposed, descriptions of veterinary involvement or post-surgical monitoring may be described. For example, if animal use involves invasive approaches that might result in discomfort, distress or pain, the investigator should describe indications and methods of veterinary care.

4. Procedures to minimize discomfort, distress, pain and injury
Conditions that may produce more than momentary discomfort, distress, pain or injury should be described including the methods to treat them. If used, pharmacologic agents should be listed as well as any non-pharmaceutical treatments. The appropriateness, methods and duration of all post-surgical
care should be described, including special housing. Humane endpoints for treatment or euthanasia to alleviate pain, distress, disease must be described. Multiple surgeries must be well justified. Use of restraint devices should be described.

5. Euthanasia
The method(s) of euthanasia must be fully described and must comply with the AVMA Guidelines on Euthanasia. Methods that do not comply with these recommendations must be justified. It is not sufficient to state simply that humane methods will be used; a complete description of the euthanasia method must be provided.

References:
This document is adapted from the National Institutes of Health (NIH) Worksheet for Review of the Vertebrate Animal Section (VAS) which is based on information from;
- Public Health Services (PHS),
- The U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training,
- the Guide for the Care and Use of Laboratory Animals
- The American Veterinary Medical Association and
- The Office of Laboratory Animal Welfare (OLAW)